

In the Claims

1-54 (Canceled)

55. (New) An isolated or purified serine carboxypeptidase (SCPhx) polypeptide:

- a) encoded by an isolated polynucleotide comprising an open reading frame of the human cDNA of deposited clone 1000848582_181-40-4-0-A11-F (ATCC PTA-2732);
- b) comprising amino acids -26 to 267 of SEQ ID NO: 4;
- c) comprising amino acids 1 to 267 of SEQ ID NO: 4;
- d) consisting of amino acids -26 to 267 of SEQ ID NO: 4;
- e) consisting of amino acids 1 to 267 of SEQ ID NO:4; or
- f) comprising an amino acid sequence at least 90, 95, 96, 97, 98, or 99% identical to a polypeptide as set forth in a), b), c), d) or e).

56. (New) The isolated or purified SCPhx polypeptide of claim 55, wherein said polypeptide is encoded by an isolated polynucleotide comprising an open reading frame of the human cDNA of deposited clone 1000848582_181-40-4-0-A11-F (ATCC PTA-2732).

57. (New) The isolated or purified SCPhx polypeptide of claim 55, wherein said polypeptide comprises amino acids -26 to 267 of SEQ ID NO: 4.

58. (New) The isolated or purified SCPhx polypeptide of claim 55, wherein said polypeptide comprises amino acids 1 to 267 of SEQ ID NO: 4.

59. (New) The isolated or purified SCPhx polypeptide of claim 55, wherein said polypeptide consists of amino acids -26 to 267 of SEQ ID NO: 4.

60. (New) The isolated or purified SCPhx polypeptide of claim 55, wherein said polypeptide consists of amino acids 1 to 267 of SEQ ID NO:4.

61. (New) The isolated or purified SCPhx polypeptide of claim 55, wherein said polypeptide comprises an amino acid sequence at least 90, 95, 96, 97, 98, or 99% identical to a polypeptide encoded by an isolated polynucleotide comprising an open reading frame of the human cDNA of deposited clone 1000848582_181-40-4-0-A11-F (ATCC PTA-2732).

62. (New) The isolated or purified SCPhx polypeptide of claim 55, wherein said polypeptide comprises an amino acid sequence at least 90, 95, 96, 97, 98, or 99% identical to a polypeptide comprising amino acids -26 to 267 of SEQ ID NO: 4.

63. (New) The isolated or purified SCPhx polypeptide of claim 55, wherein said polypeptide comprises an amino acid sequence at least 90, 95, 96, 97, 98, or 99% identical to a polypeptide comprising amino acids 1 to 267 of SEQ ID NO: 4.

64. (New) The isolated or purified SCPhx polypeptide of claim 55, wherein said polypeptide comprises an amino acid sequence at least 90, 95, 96, 97, 98, or 99% identical to a polypeptide consisting of amino acids -26 to 267 of SEQ ID NO: 4.

65. (New) The isolated or purified SCPhx polypeptide of claim 55, wherein said polypeptide comprises an amino acid sequence at least 90, 95, 96, 97, 98, or 99% identical to a polypeptide consisting of amino acids 1 to 267 of SEQ ID NO: 4.

66. (New) A composition comprising a physiologically acceptable carrier and a serine carboxypeptidase (SCPhx) polypeptide:

- a) encoded by an isolated polynucleotide comprising an open reading frame of the human cDNA of deposited clone 1000848582_181-40-4-0-A11-F (ATCC PTA-2732);
- b) comprising amino acids -26 to 267 of SEQ ID NO: 4;
- c) comprising amino acids 1 to 267 of SEQ ID NO: 4;
- d) consisting of amino acids -26 to 267 of SEQ ID NO: 4;

- e) consisting of amino acids 1 to 267 of SEQ ID NO:4; or
- f) comprising an amino acid sequence at least 90, 95, 96, 97, 98, or 99% identical to a polypeptide as set forth in a), b), c), d) or e).

67. (New) The composition of claim 66, wherein said SCPhx polypeptide is encoded by an isolated polynucleotide comprising an open reading frame of the human cDNA of deposited clone 1000848582_181-40-4-0-A11-F (ATCC PTA-2732).

68. (New) The composition of claim 66, wherein said SCPhx polypeptide comprises amino acids -26 to 267 of SEQ ID NO: 4.

69. (New) The composition of claim 66, wherein said SCPhx polypeptide comprises amino acids 1 to 267 of SEQ ID NO: 4.

70. (New) The composition of claim 66, wherein said SCPhx polypeptide consists of amino acids -26 to 267 of SEQ ID NO: 4.

71. (New) The composition of claim 66, wherein said SCPhx polypeptide consists of amino acids 1 to 267 of SEQ ID NO:4.

72. (New) The composition of claim 66, wherein said SCPhx polypeptide comprises an amino acid sequence at least 90, 95, 96, 97, 98, or 99% identical to a polypeptide a encoded by an isolated polynucleotide comprising an open reading frame of the human cDNA of deposited clone 1000848582_181-40-4-0-A11-F (ATCC PTA-2732).

73. (New) The composition of claim 66, wherein said SCPhx polypeptide comprises an amino acid sequence at least 90, 95, 96, 97, 98, or 99% identical to a polypeptide comprising amino acids -26 to 267 of SEQ ID NO: 4.

74. (New) The composition of claim 66, wherein said SCPhx polypeptide comprises an amino acid sequence at least 90, 95, 96, 97, 98, or 99% identical to a polypeptide comprising amino acids 1 to 267 of SEQ ID NO: 4.

75. (New) The composition of claim 66, wherein said polypeptide comprises an amino acid sequence at least 90, 95, 96, 97, 98, or 99% identical to a polypeptide consisting of amino acids -26 to 267 of SEQ ID NO: 4.

76. (New) The composition of claim 66, wherein said polypeptide comprises an amino acid sequence at least 90, 95, 96, 97, 98, or 99% identical to a polypeptide consisting of amino acids 1 to 267 of SEQ ID NO: 4.

77. (Withdrawn) A method of making a serine carboxypeptidase (SCPhx) polypeptide, said method comprising:

a) providing a population of cells comprising a polynucleotide encoding a SCPhx polypeptide operably linked to a promoter, said SCPhx polypeptide:

- i) being encoded by an isolated polynucleotide comprising an open reading frame of the human cDNA of deposited clone 1000848582_181-40-4-0-A11-F (ATCC PTA-2732);
- ii) comprising amino acids -26 to 267 of SEQ ID NO: 4;
- iii) comprising amino acids 1 to 267 of SEQ ID NO: 4;
- iv) consisting of amino acids -26 to 267 of SEQ ID NO: 4;
- v) consisting of amino acids 1 to 267 of SEQ ID NO:4; or
- vi) comprising an amino acid sequence at least 90, 95, 96, 97, 98, or 99% identical to a polypeptide as set forth in i), ii), iii), iv) or v);

b) culturing said population of cells under conditions conducive to the production of said polypeptide within said cells; and

c) purifying said polypeptide from said population of cells.

78. (New) The method of claim 77, wherein said polynucleotide is encoded by an isolated polynucleotide comprising an open reading frame of the human cDNA of deposited clone 1000848582_181-40-4-0-A11-F (ATCC PTA-2732).

79. (New) The method of claim 77, wherein said polynucleotide encodes a polypeptide comprising amino acids -26 to 267 of SEQ ID NO: 4.

80. (New) The method of claim 77, wherein said polynucleotide encodes a polypeptide comprising amino acids 1 to 267 of SEQ ID NO: 4.

81. (New) The method of claim 77, wherein said polynucleotide encodes a polypeptide consisting of amino acids -26 to 267 of SEQ ID NO: 4.

82. (New) The method of claim 77, wherein said polynucleotide encodes a polypeptide comprising an amino acid sequence at least 90, 95, 96, 97, 98, or 99% identical to a polypeptide as set forth in i), ii), iii), iv) or v).

83. (New) A method of binding a SCPhx polypeptide according to claim 55 to an antibody comprising contacting said antibody with said polypeptide under conditions in which said antibody can specifically bind to said polypeptide.

84. (New) The method of claim 83, wherein said SCPhx polypeptide is encoded by an isolated polynucleotide comprising an open reading frame of the human cDNA of deposited clone 1000848582_181-40-4-0-A11-F (ATCC PTA-2732).

85. (New) The method of claim 83, wherein said SCPhx polypeptide comprises amino acids -26 to 267 of SEQ ID NO: 4.

86. (New) The method of claim 83, wherein said SCPhx polypeptide comprises amino acids 1 to 267 of SEQ ID NO: 4.

87. (New) The method of claim 83, wherein said SCPhx polypeptide consists of amino acids -26 to 267 of SEQ ID NO: 4.

88. (New) The method of claim 83, wherein said SCPhx polypeptide consists of amino acids 1 to 267 of SEQ ID NO:4.

89. (New) The method of claim 83, wherein said SCPhx polypeptide comprises an amino acid sequence at least 90, 95, 96, 97, 98, or 99% identical to a polypeptide encoded by an isolated polynucleotide comprising an open reading frame of the human cDNA of deposited clone 1000848582_181-40-4-0-A11-F (ATCC PTA-2732).

90. (New) The method of claim 83, wherein said SCPhx polypeptide comprises an amino acid sequence at least 90, 95, 96, 97, 98, or 99% identical to a polypeptide comprising amino acids -26 to 267 of SEQ ID NO: 4.

91. (New) The method of claim 83, wherein said SCPhx polypeptide comprises an amino acid sequence at least 90, 95, 96, 97, 98, or 99% identical to a polypeptide comprising amino acids 1 to 267 of SEQ ID NO: 4.

92. (New) The method of claim 83, wherein said polypeptide comprises an amino acid sequence at least 90, 95, 96, 97, 98, or 99% identical to a polypeptide consisting of amino acids -26 to 267 of SEQ ID NO: 4.

93. (New) The method of claim 83, wherein said polypeptide comprises an amino acid sequence at least 90, 95, 96, 97, 98, or 99% identical to a polypeptide consisting of amino acids 1 to 267 of SEQ ID NO: 4.